

CLAIMS

1. A roller assembly for use in live carton storage, the assembly including:
at least one roller rotatable about a roller axle, with the axle of each roller
5 extending outwardly beyond the longitudinal ends of the roller;
a roller support including a base portion and two wall portions, the two wall
portions being connected to and upstanding from the base portion, and each
wall portion of the roller support including a slot for receiving a respective end of
the axle of each roller for rotatably supporting the roller there between; and
10 a means for retaining the ends of each roller axle in the respective
receiving slots.
2. A roller assembly according to claim 1, wherein the base portion and
upstanding wall portions define a longitudinally extending channel having a
15 generally U-shape.
3. A roller assembly according to claim 1, wherein the base portion and side
portions define a pair of longitudinally extending and generally L-shaped
members, which are orientated parallel to one another.
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4. A roller assembly according to any one of the preceding claims, including
a plurality of rollers, with each roller orientated generally transversely relative to
the longitudinally extending base and wall portions.
- 25 5. A roller assembly according to claim 4, wherein the generally
transversely orientated rollers are spaced longitudinally along the wall portions
of the roller support.
6. A roller assembly according to claim 6, wherein the rollers are spaced
30 equidistantly along the roller support.
7. A roller assembly according to any one of claims 4 to 6, wherein the axle
ends of each roller are receivable in respective pairs of slots provided in the

upstanding wall portions, with each slot pair being longitudinally spaced along the wall portions.

8. A roller assembly according to any one of the preceding claims, wherein
5 each roller is rotatable about a respective roller axle.

9. A roller assembly according to claim 7 or 8, wherein each slot pair
extends downwardly from the upstanding edge of each wall portion at an
inclined angle.

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10. A roller assembly according to claim 9, wherein the inclined angle of
each adjacent slot pair is generally equal and opposite.

11. A roller assembly according to any one of claims 4 to 7, wherein two or
15 more rollers share a common roller axle.

12. A roller assembly according to any one of the preceding claims, including
a roller retainer for retaining each of the rollers in its desired position relative to
the wall portions.

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13. A roller assembly according to claim 12, wherein the retainer includes
two parallel and longitudinally extending axle abutment surfaces, which are
configured to locate axially slightly beyond each end of the axle rollers when
fitted in the slots provided in the wall portions.

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14. A roller assembly according to claim 13, wherein the axle abutment
surfaces form part of a frame that is connectable to the wall portions of the roller
support.

15. A roller assembly according to claim 13 or 14, wherein an axle is fixed to
30 each roller, such that axial displacement of the rollers and axles within the
assembly is limited by the roller ends abutting the inside surfaces of the wall
portions.

16. A roller assembly according to claim 14 or 15, wherein the frame includes:

channels for attaching the frame over the upper edges of the wall portions; and axle locating lugs for locating the frame relative to each of the axles.

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17. A roller assembly according to any one of the preceding claims, including a motion control device, the motion control device having at least one object contact surface for impeding the motion of an object travelling over the at least one roller of the roller assembly, wherein the motion control device is pivotally connectable to a roller support of the assembly.

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18. A roller assembly according to claim 17, wherein the motion control device is mountable to the roller assembly in any one of a plurality of possible orientations, thereby providing the potential of being able to be used for more than one specific use.

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19. A roller assembly according to claim 17 or 18, wherein the motion control device is connectable to the roller support such that an object contact surface is orientated generally flush with a plane defined by the points of contact between an object and the rollers, for locking a roller support end cap in position on the roller support.

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20. A roller assembly according to any one of claims 17 to 19, wherein the motion control device is connectable to the roller support such that an object contact surface is orientated substantially perpendicularly relative to the plane defined by the points of contact between an object and the rollers, such that the motion control device acts as an end stop preventing further motion of containers across the at least one roller.

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21. A roller assembly according to any one of claims 17 to 20, wherein the motion control device is connectable to the roller support such that an object contact surface is orientated at an angle between parallel and perpendicular to the plane defined by the points of contact between an object and the rollers, in

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order to slow or otherwise arrest the movement of any containers passing across the at least one roller.

22. A motion control device for a roller assembly, wherein the motion control
5 device is pivotally connectable to a roller support of a roller assembly, and includes at least one contact surface for impeding the motion of an object travelling over the rollers of the roller assembly.

23. A motion control device according to claim 22, wherein device is
10 mountable to a roller assembly in any one of a plurality of possible orientations, thereby providing the potential of being able to be used for more than one specific use.

24. A motion control device according to claim 22 or 23, wherein the device
15 is connectable to a roller support such that a contact surface is orientated generally flush with a plane defined by the points of contact between an object and the rollers, for locking a roller support end cap in position on the roller support.

25. A motion control device according to any one of claims 22 to 24, wherein
20 the device is connectable to a roller support such that a contact surface is orientated substantially perpendicularly relative to a plane defined by the points of contact between an object and the rollers, for acting as an end stop preventing further motion of containers across the at least one roller.

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26. A motion control surface according to any one of claims 22 to 25,
wherein the device is connectable to a roller support such that a contact surface is orientated at an angle between parallel and perpendicular with a plane defined by the points of contact between an object and the rollers, for slowing or
30 otherwise arresting the movement of any containers passing across the at least one roller.